

REMARKS

Entry of the foregoing amendments is respectfully requested.

Summary of Amendments

By the foregoing amendments independent claims 3, 26 and 30 are amended. The amendments make it clear that the claimed compositions are effective for boosting natural skin tanning and/or the stimulation of melanogenesis in the human skin, and that in the claimed method the at least one substance is effective for boosting natural skin tanning and/or stimulating melanogenesis in human skin.

Applicants point out that the present amendments are without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute claims 3, 26 and 30 in their original, unamended form in one or more continuation and/or divisional applications.

Summary of Office Action

As an initial matter, Applicants note with appreciation that signed and initialed copies of the Forms PTO-1449 submitted in the Information Disclosure Statements filed October 6, 2004 and June 8, 2005 have been returned together with the present Office Action.

Applicants further note with appreciation that the present Office Action acknowledges the claim for foreign priority under 35 U.S.C. § 119(a)-(d) and (f) and the receipt of certified copies of the priority documents.

Claims 3-42 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by

U.S. Patent No. 6,706,696 to Griesbach et al. (hereafter "GRIESBACH").

Response to Office Action

Reconsideration and withdrawal of the rejection of record is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 3-42, i.e., all claims of record, are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by GRIESBACH. In this regard, the present Office Action alleges, *inter alia*, that GRIESBACH "discloses that cosmetic preparations containing nucleic acids, specifically purines and pyrimidines and their derivatives stimulate the production of melanin in human skin and produce pigment." The rejection specifically refers to column 3, lines 1-45 for the specific purines and pyrimidines. The rejection further appears to allege that the features recited in the present dependent claims are disclosed by GRIESBACH as well.

This rejection is respectfully traversed. As an initial matter, Applicants note that GRIESBACH, which was published on March 16, 2004, does not qualify as prior art under 35 U.S.C. § 102(b) for the present application (which is a continuation of International Application PCT/EP02/11157 filed on October 4, 2002). However, since on the front page of GRIESBACH the publication date of the PCT application on which GRIESBACH is based, i.e., PCT application PCT/EP00/01838, is stated to be September 21, 2000, Applicants are commenting on GRIESBACH despite the fact that this document by itself does not qualify as prior art under 35 U.S.C. § 102(b) for the present application.

As stated above, the present rejection alleges that GRIESBACH “discloses that cosmetic preparations containing nucleic acids, specifically purines and pyrimidines and their derivatives stimulate the production of melanin in human skin and produce pigment.”

Applicants are unable to find a corresponding disclosure in GRIESBACH. GRIESBACH does not appear to even mention the stimulation of the production of melanin, let alone by the compositions disclosed therein.

Especially the following passages of GRIESBACH cast light on the purpose and effect of the compositions of GRIESBACH (emphases added):

The pigment coating of normal skin leads under the influence of sun radiation to the formation of melanines. In this connection the irradiation with UV-A light with long wavelength leads to darkening of the melanine bodies which are already in the epidermis, without visible harmful results, whereas the UV-B radiation with short wavelengths leads to formation of new melanines. However, prior to the formation of the protective pigment, the skin is exposed to the influence of the unfiltered radiation, which, depending of exposure time, leads to red skin (erythemas), inflammation of the skin (sunburn) or also to blisters of bum. The stress on the organism in connection with such skin lesions, e.g. in connection with the distribution of histamines, can in addition lead to headache, faintness, fever, disturbance of heart and circulation and such like. For the consumer who wants to protect himself against the harmful aspects of radiation from the sun, various products are offered on the market, in the form of preparations in water and also cremes, oils and milky emulsions, which in addition to some skin care substances mainly contain UV light protection filters. However, as to the UV protection as well as the support of the regulation of the water and metabolism in the epidermis, these preparations are by no means satisfactory.

Therefore there is in still a demand in the market for products with an improved spectrum of efficiency. For the evaluation of the efficiency of such products it is above all relevant, to what extent they are capable of preventing the harmful effects of the UV radiation to the skin and hair, especially, however, to the (desoxy)ribonucleic acids of the skin. Further skin compatibility as well as the use of natural products, are in demand by the customer.

Col. 1, lines 14-44.

Consequently, the complex task of the present invention was to make available cosmetic, respectively pharmaceutical, preparations, which by topical use penetrate the upper layers of the skin, or by hair care penetrate the keratin fibers, where they

protect the tissue as well as the cells in a **direct manner** against the harmful effects of UV radiation, and support the film formation on the hair and the regulation of the water and the metabolic functions in the skin, and in this way are causing a vitalisation.

Col. 2, lines 10-17.

Surprisingly it was found that mixtures of β -(1,3) glucans, which are substantially free from β -(1,6) linkages, together with ribo- or desoxy ribonucleic acids show a synergistic improved absorption spectrum, which is especially well suited for protection of (desoxy)ribonucleic acids of the body. This effect, which has not been found in mixtures of nucleic acids with glucans, which still show appreciable fractions of (1,6) branches, can advantageously be increased by using as further components common UV light protection factors or antioxydants, which may be organic filters or anorganic pigments. The preparations according to the invention are further distinguished by the fact that they moderate skin irritations and injuries and stimulate the water and metabolic procedures in the skin, so that for example also the wrinkling because of desiccating due to heavy radiation from the sun at the same time is counteracted. As to the hair the film formation is supported.

Col. 2, lines 26-42.

Accordingly, the compositions of GRIESBACH differ from the compositions of the present invention with respect to, *inter alia*, their effects on the skin. Whereas the compositions of the present invention boost natural skin tanning and/or the stimulation of melanogenesis in the human skin, the compositions of GRIESBACH "show a synergistic improved absorption spectrum, which is especially well suited for protection of (desoxy)ribonucleic acids of the body" and "moderate skin irritations and injuries and stimulate the water and metabolic procedures in the skin".

Further, the compositions of GRIESBACH contain (desoxy)ribonucleic acids (as well as cleavage and decomposition products thereof), whereas the compositions of the present invention contain at least one purine compound and/or at least one pyrimidine compound.

While it is correct that the molecules of (desoxy)ribonucleic acids comprise nucleosides, i.e., adenosine, guanosine, cytidine and thymine, these nucleosides are only a part of a complex molecular structure, i.e., that of a (desoxy)ribonucleic acid. Moreover, nucleosides must not be confused with free nucleobases (i.e., adenine, guanine, cytidine and thymine). As explained in col. 3, lines 1-45 of GRIESBACH, a nucleoside comprises a nucleobase which is (N-glycosidically) bound to carbon atom 1 of a sugar molecule, i.e., ribose. A plurality of such nucleosides are connected through phosphodiester bridges to constitute a single strand of a (desoxy)ribonucleic acid.

Accordingly, from the fact that the compositions of GRIESBACH contain (desoxy)ribonucleic acids it can by no means be concluded that these compositions (necessarily) contain free nucleobases, i.e., free purine and/or pyrimidine bases.

Applicants are aware that GRIESBACH also mentions that the compositions disclosed therein may contain "cleavage and decomposition products" of (desoxy)ribonucleic acids. However, GRIESBACH does not contain any indication whatsoever as to the structures of these cleavage and decomposition products. Furthermore, even if these cleavage and decomposition products were assumed, *arguendo*, to include free nucleobases, it would not be known in which amounts these products are present in the compositions of GRIESBACH. At any rate, according to GRIESBACH, col. 3, lines 22-24, "[f]or the purpose of the invention concentrated DNA or RNA solutions are used, which are characterised by a liquid-crystalline [*sic*] behaviour".

Applicants submit that for at least all of the foregoing reasons, GRIESBACH neither teaches nor suggests the subject matter of any of the present claims. In view thereof, the rejection of the present claims under 35 U.S.C. § 102(b) over GRIESBACH is without

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merit, wherefore withdrawal thereof is respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
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